Lava Beds National Monument

Klamath Basin Birding Trail Education Kit
Curriculum Standards- Oregon

The following curriculum standards for Oregon are covered in this activity binder. Each activity states which curriculum standards it relates to at the beginning of the activity.

Unit 1 – What is a Bird?

Activity 1- What Makes a Bird a Bird?

Oregon Science Standards
Grade 3: 1L.1, 2L.1, 4D.3
3.1L.1 Compare and contrast the characteristics of offspring and parents.
3.2L.1 Compare and contrast the life cycles of plants and animals.
3.4D.3 Give examples of inventions that enable scientists to observe things that are too small or too far away.

Grade 4: 2L.1
4.2L.1 Describe the interactions of organisms and the environment where they live.

Grade 5: 2L.1
5.2L.1 Explain the interdependence of plants, animals, and environment, and how adaptation influences survival.

Grade 8: 1L.1
8.1L.1 Explain how genetics and anatomical characteristics are used to classify organisms and infer evolutionary relationships.

Activity 2- Bird Olympics

Oregon Science Standards
Grade 1: 1L.1
1.1L.1 Compare and contrast characteristics among individuals within one plant or animal group.

Grade 4: 2L.1
4.2L.1 Describe the interactions of organisms and the environment where they live.

Grade 5: 2L.1
5.2L.1 Explain the interdependence of plants, animals, and environment, and how adaptation influences survival.

Grade 8: 2L.1
8.2L.1 Explain how species change through the process of natural selection. Describe evidence for evolution.

Activity 3- Migration Obstacle Course

Oregon Science Standards
Grades 2-4: 2L.1
2.2L.1 Describe life cycles of living things.
3.2L.1 Compare and contrast the life cycles of plants and animals.
4.2L.1 Describe the interactions of organisms and the environment where they live.

Grades 5-6: 2L.2
5.2L.2 Explain the interdependence of plants, animals, and environment, and how adaptation influences survival.
6.2L.2 Explain how individual organisms and populations in an ecosystem interact and how changes in populations are related to resources.

Activity 4- Lava Beds National Monument Habitats

Oregon Science Standards
Grade 4: 2L.1
4.2L.1 Describe the interactions of organisms and the environment where they live.

Grade 5: 1L.1
5.1L.1 Explain that organisms are composed of parts that function together to form a living system.

Grade 6: 2L.1
5.2L.1 Explain the interdependence of plants, animals, and environment, and how adaptation influences survival.

Activity 5- Petroglyph Point and Owls

Oregon Science Standards
Grade 5: 1L.1, 2L.2, 3S.1
5.1L.1 Explain that organisms are composed of parts that function together to form a living system.
5.2L.2 Explain the interdependence of plants, animals, and environment, and how adaptation influences survival.
5.3S.1 Based on observations and science principles, identify questions that can be tested, design an experiment or investigation, and identify appropriate tools. Collect and record multiple observations while conducting investigations or experiments to test a scientific question or hypothesis.

Grade 6: 2L.2
6.2L.2 Explain how individual organisms and populations in an ecosystem interact and how changes in populations are related to resources.

Unit 2 – Birding and Studying Birds

Activity 1- Binoculars Bonanza!

Oregon Science Standards
Grade 1: 3S.1
1.3S.1 Identify and use tools to make careful observations and answer questions about the natural world.

Grade 2: 3S.3
2.3S.3 Make, describe, and compare observations, and organize recorded data.

Grade 3: 4D.3
3.4D.3 Give examples of inventions that enable scientists to observe things that are too small or too far away.

Activity 2- Bird ID Experts

Oregon Science Standards
Grade 1: 1L.1, 3S.1
1.1L.1 Compare and contrast characteristics among individuals within one plant or animal group.
1.3S.1 Identify and use tools to make careful observations and answer questions about the natural world.

Grade 2: 3S.3
2.3S.3 Make, describe, and compare observations, and organize recorded data.

Grade 5: 1L.1, 3S.1
5.1L.1 Explain that organisms are composed of parts that function together to form a living system.
5.3S.1 Based on observations and science principles, identify questions that can be tested, design an experiment or investigation, and identify appropriate tools. Collect and record multiple observations while conducting investigations or experiments to test a scientific question or hypothesis.

Grade 8: 1L.1
8.1L.1 Explain how genetics and anatomical characteristics are used to classify organisms and infer evolutionary relationships.

Activity 3- Using Bird Field Guides

Oregon Science Standards
Grade 3: 2L.1
3.2L.1 Compare and contrast the life cycles of plants and animals.

Grade 6: 2L.1
6.2L.1 Describe the relationships and interactions between and among cells, tissues, organs, and organ systems.

Grade 8: 1L.1
8.1L.1 Explain how genetics and anatomical characteristics are used to classify organisms and infer evolutionary relationships.

Activity 4- Using Plant Field Guides

Oregon Science Standards
Grade 8: 1L.1
8.1L.1 Explain how genetics and anatomical characteristics are used to classify organisms and infer evolutionary relationships.

Activity 5- Birding By Ear

Oregon Science Standards
Grade 2: 3S.3
2.3S.3 Make, describe, and compare observations, and organize recorded data.

Grade 4: 2L.1, 3S.2
4.2L.1 Describe the interactions of organisms and the environment where they live.
4.3S.2 Summarize the results from a scientific investigation and use the results to respond to the question being tested.

Grade 6: 3S.2
6.3S.2 Organize and display relevant data, construct an evidence-based explanation of the results of an investigation, and communicate the conclusions.

Grade 8: 1L.1
8.1L.1 Explain how genetics and anatomical characteristics are used to classify organisms and infer evolutionary relationships.

Activity 6- Counting Birds

Oregon Science Standards
Grade 2: 3S.2,3
2.3S.3 Make, describe, and compare observations, and organize recorded data.
2.3S.3 Make, describe, and compare observations, and organize recorded data.

Grade 3: 3S.2
3.3S.2 Use the data collected from a scientific investigation to explain the results and draw conclusions.

Grade 4: 2L.2, 3S.1,2
4.2L.2 Describe the interactions of organisms and the environment where they live.
4.3S.1 Based on observations identify testable questions, design a scientific investigation, and collect and record data consistent with a planned scientific investigation.
4.3S.2 Summarize the results from a scientific investigation and use the results to respond to the question being tested.

Grade 6: 2L.2, 3S.2
6.2L.2 Explain how individual organisms and populations in an ecosystem interact and how changes in populations are related to resources.
6.3S.2 Organize and display relevant data, construct an evidence-based explanation of the results of an investigation, and communicate the conclusions.

Grade 7: 3S.1,3
7.3S.1 Based on observations and science principles, propose questions or hypotheses that can be examined through scientific investigation. Design and conduct a scientific investigation that uses appropriate tools and techniques to collect relevant data.

7.3S.3 Evaluate the validity of scientific explanations and conclusions based on the amount and quality of the evidence cited.

High School: 3S.1,2

H.3S.1 Based on observations and science principles, formulate a question or hypothesis that can be investigated through the collection and analysis of relevant information.
H.3S.2 Design and conduct a controlled experiment, field study, or other investigation to makesystematic observations about the natural world, including the collection of sufficient and appropriate data.

Activity 7- Raptors Along the Road

Oregon Science Standards
Grade 4: 2L.1
4.2L.1 Describe the interactions of organisms and the environment where they live.
Grade 5: 2L.1
5.2L.1 Explain the interdependence of plants, animals, and environment, and how adaptation influences survival.

Activity 8- Create a Field Journal!

Oregon Science Standards

Grade 4: 3S.2,3
4.3S.2 Summarize the results from a scientific investigation and use the results to respond to the question being tested.
4.3S.3 Explain that scientific claims about the natural world use evidence that can be confirmed and support a logical argument.
Grade 5: 3S.1
5.3S.1 Based on observations and science principles, identify questions that can be tested, design an experiment or investigation, and identify appropriate tools. Collect and record multiple observations while conducting investigations or experiments to test a scientific question or hypothesis.

Activity 9- Birds and Caves at Lava Beds National Monument

Oregon Science Standards
Grade 3: 3.S.2
3.3S.2 Use the data collected from a scientific investigation to explain the results and draw conclusions.

Grade 4: 2L.1
4.2L.1 Describe the interactions of organisms and the environment where they live.

Grade 5: 3S.2
5.3S.2 Identify patterns in data that support a reasonable explanation for the results of an investigation or experiment and communicate findings using graphs, charts, maps, models, and oral and written reports.

Grade 7: 3S.3
7.3S.3 Evaluate the validity of scientific explanations and conclusions based on the amount and quality of the evidence cited.

Activity 10- Birds, Plants, and People of the Klamath Basin

Oregon Science Standards
Grade 2: 4D.1
2.4D.1 Use tools to construct a simple designed structure out of common objects and materials.

Grade 4: 2L.1
4.2L.1 Describe the interactions of organisms and the environment where they live.

Grade 5: 2L.1
5.2L.1 Explain the interdependence of plants, animals, and environment, and how adaptation influences survival.

Activity 11- Bird Banding Reveals

Oregon Science Standards
Grade 3: 3.S.2
3.3S.2 Use the data collected from a scientific investigation to explain the results and draw conclusions.

Grade 4: 3S.2, 3 4.3S.2
Summarize the results from a scientific investigation and use the results to respond to the question being tested.
4.3S.3 Explain that scientific claims about the natural world use evidence that can be confirmed and support a logical argument.

Unit 3 – Bird Conservation

Activity 1- Citizen Science

Oregon Science Standards
Grade 6: 2L.2, 4D.1
6.2L.2 Explain how individual organisms and populations in an ecosystem interact and how changes in populations are related to resources.
6.4D.1 Define a problem that addresses a need and identify science principles that may be related to possible solutions.

Grade 7: 3S.1,3
7.3S.1 Based on observations and science principles, propose questions or hypotheses that can be examined through scientific investigation. Design and conduct a scientific investigation that uses appropriate tools and techniques to collect relevant data.
7.3S.3 Evaluate the validity of scientific explanations and conclusions based on the amount and quality of the evidence cited.

High School: 3S.1,2
H.3S.1 Based on observations and science principles, formulate a question or hypothesis that can be investigated through the collection and analysis of relevant information.
H.3S.2 Design and conduct a controlled experiment, field study, or other investigation to make systematic observations about the natural world, including the collection of sufficient and appropriate data.

Activity 2- Birding Economics

Oregon Science Standards
Grade 6: 3S.2
6.3S.2 Organize and display relevant data, construct an evidence-based explanation of the results of an investigation, and communicate the conclusions.

Grade 8: 3S.2
8.3S.2 Organize, display, and analyze relevant data, construct an evidence-based explanation of the results of a scientific investigation, and communicate the conclusions including possible sources of error. Suggest new investigations based on analysis of results.

High School: 3S.4
H.3S.4 Identify examples from the history of science that illustrate modification of scientific knowledge in light of challenges to prevailing explanations.

Activity 3- Take Action!

Oregon Science Standards
Grade 4: 2.L.1
4.2L.1 Describe the interactions of organisms and the environment where they live.

Grade 6 : 2.L.2
6.2L.2 Explain how individual organisms and populations in an ecosystem interact and how changes in populations are related to resources.

Activity 4- Sagebrush Steppe Habitat Assessment

Oregon Science Standards
Grade 4: 2L.1
4.2L.1 Describe the interactions of organisms and the environment where they live.

Grade 6: 2L.2
6.2L.2 Explain how individual organisms and populations in an ecosystem interact and how changes in populations are related to resources.

Activity 5- Fire at Lava Beds National Monument

Oregon Science Standards
Grade 4: 2L.1
4.2L.1 Describe the interactions of organisms and the environment where they live.

Grade 5: 2L.2,
5.2L.2 Explain the interdependence of plants, animals, and environment, and how adaptation influences survival.

Grade 6: 2L.2, 4D.1
6.2L.2 Explain how individual organisms and populations in an ecosystem interact and how changes in populations are related to resources.
6.4D.1 Define a problem that addresses a need and identify science principles that may be related to possible solutions.

High School: 2L.2
H.2L.2 Explain how ecosystems change in response to disturbances and interactions. Analyze the relationships among biotic and abiotic factors in ecosystems.

Legend For Oregon Curriculum Standards:
Science Numbering Key Example: K.2P.1

K = Grade

2 = Core Standard strand
(Strands are 1=Structure and Function; 2=Interaction and change; 3=Scientific Inquiry; 4=Engineering Design)

P = Science Discipline
(Disciplines are P = Physical; L = Life; E = Earth and Space; S = Scientific inquiry; D = Engineering Design)

1 = Number of the content standard for this grade, strand, and discipline